VEGETATIVE REPRODUCTION IN HYDRANGEA.—Mr. R. J. Eaton has recently (Rhodora, January, 1929) given an interesting account of Hydrangea paniculata as naturalized in Massachusetts, the first time that this shrub has been recorded as naturalized in North America. It grew "in rather dense irregular clumps," "forming a veritable tangle and in full flower"; thus the plant was well established. Mr. Eaton thinks it is probable that the plants had been propagated by seed, since there was no evidence of rooting at the tips of the recurved branches, as is so well exemplified by Rubus. There is, however, another method of vegetative reproduction, which has been recorded from a number of species of the genus, namely by root-shoots, and this would explain its abundance and irregular vegetation described by Mr. Eaton. It would also explain in what form the plant had escaped: as a mere fragment of a root, evidently originating from a garden, where the plant had been dug up and thrown away, because it was too plentiful! It is a well known fact that plants, notably trees and shrubs, producing root-shoots, often become a pest in cultivated places, gardens, parks, etc., and we know also that roots possess a marvelous power to preserve their life and power to sprout for many years; moreover, one single root may develop many shoots during the same season.1 We feel sure that if Mr. Eaton visits the place again and lifts some of the smaller specimens, these will prove to represent root-shoots rather than seedling-plants. If our suggestion be correct, no long period of time would have been necessary for the abundant occurrence of the Hydrangea, because the growth of root-shoots is enormously fast and vigorous; notice for instance Rhus, Ailanthus, Robinia, Sassafras and many others. No doubt Hydrangea paniculata will in the course of some years become distributed to other localities, and this first record by Mr. Eaton is therefore of great importance from a geographical point of view.— THEO. HOLM, Clinton, Maryland.

<sup>1</sup> Compare: Holm, On the Development of Buds upon Roots and Leaves. Ann. of Botany, Vol. 39, 867-881. 1925.

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